Nelson, Bettie L

From: Walk, Roger A.
Sent: Sunday, March 25, 2001 8:43 PM
To: Nelson, Bettie L; Kinser, Robin D.; Lau, Raymond W.; Putney, Rebecca M.
Subject: FW: New CDC Chemical Exposure Report Begins to Fill Critical Information Gaps in Environmental Health for U.S. Population

Hello team, this seems to be quite interesting.

- Bettie, could you have a look how they define 'representativeness'?
- Bettie, could you also look at the cotinine data whether they say something about variation (could be valuable for our TES) ?
- Raymond, could you look at the ETS data and see whether we can learn something?
- Robin, could you present an overview of the data and their relevance for TES at our next Staff Meeting?
- Rebecca, could you print a copy of the 'Results' from the website for me?

Thanks all.
Roger

-----Original Message-----
From: **Hough, Melissa**
Sent: Wednesday, March 21, 2001 2:14 PM
To: Berlind, Mark; Carnovale, Mary E.; Desel, Paula; Donner, Sally; Fisher, Scott; Gimbel, Tod; Goldman, Rochelle; Grant, Ellen; Hanson, Terry D.; Hoel, John; Inmann, Pam; Lindheim, Jim; McCormick, Brendan J.; McKittrick, Beverly; Murphy, Virginia; Pfeil, Michael E.; Reese, Robert; Ryan, Thomas M; Scott, Gregory; Scruggs, John; Turner, Henry; Williams, Scott (BSMG); Wilson, Gregory B. (PMUSA); Bourlas, Manuel; Carmines, Edward L.; Davies, Bruce D.; Dempsey, Ruth; Elves, Robert G.; Fox, Kathleen H.; Gaines, Ola M.; Gullotta, Frank P.; Hirnikel, Daniel J.; Jerome, Ann M.; King, Valerie A.; Kinser, Robin D.; Koller, Debbie; Lau, Raymond W.; Lipowicz, Peter J.; McKinney, Willie J; Nelson, Bettie L; Nixon, Gerry M.; Patskan, George J.; Ritter, Mitchell; Sanders, Edward; Schorp, Matthias; Smith, Donna C.; Solana, Rick P.; Takada, Kohji; Tricker, Anthony; Walk, Roger A.; Werley, Michael S.; Zhang, Mingda
Cc: Bilodeau, Jill; Borelli, Thomas; Colegrove, Daniel; Daragan, Karen M.; Harris, Peter L. (PLH); Hough, Melissa; Ingram, Cary; Kiley, Deborah; Lenling, Amy; Lowy, David; Nicoli, David; Stojsavljevich, Michael; Sylvia, David; von Maerestetten, Cynthia
Subject: New CDC Chemical Exposure Report Begins to Fill Critical Information Gaps in Environmental Health for U.S. Population

Issues WATCH

New CDC Chemical Exposure Report Begins to Fill Critical Information Gaps in Environmental Health for U.S. Population

The Centers for Disease Control and Prevention (CDC) today released the first National Report on Human Exposure to Environmental Chemicals, an important new research tool that will provide better information on levels of exposure to environmental chemicals, and over time what these levels mean for public health The chemicals studied in the report include metals (e.g., lead and mercury), pesticide metabolites, phthalate metabolites and cotinine (which tracks exposure to tobacco smoke).

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Source: https://www.industrydocuments.ucsf.edu/docs/hfvl0001

Advances in a technology known as biomonitoring allow CDC to measure chemicals directly in blood and urine samples rather than estimating population exposures by measuring air, water, or soil samples. Based on this scientific advancement, the new report provides data on actual levels of chemicals in humans. As data are collected over the years, researchers will be better able to determine possible health effects and design appropriate public health strategies.

This first report initially measures the exposure of the U.S. population to 27 environmental chemicals. **The report includes metals (e.g., lead and mercury), pesticide metabolites, phthalate metabolites and cotinine (which tracks exposure to tobacco smoke).** Levels of environmental chemicals were measured in blood and urine samples collected from participants in CDC's National Health and Nutrition Examination Survey (NHANES) - an ongoing national health survey of the U.S. population. The Report provides results from the 1999 survey; data from future years will help confirm these findings.

Although the report does not include new information on health risks of exposures or on potential routes of exposures, this is the first time that national exposure levels of the U.S. population are known for 24 of these 27 chemicals. CDC previously assessed the population's exposure to three substances -- lead, cadmium, and cotinine, and the report provides new data for the 1999 calendar year. Previously, only limited data were available on which environmental chemicals were in the U.S. population and at what levels.

The first Report provides information on the exposure of the U.S. population to these 27 substances. The chemicals, grouped into four categories, are as follows:

- Metals: lead, mercury, cadmium, cobalt, antimony, barium, beryllium, cesium, molybdenum, platinum, thallium, tungsten, and uranium.
- Tobacco smoke: cotinine: a metabolite of nicotine that tracks tobacco smoke exposure.
- Organophosphate pesticides: dimethylphosphate, dimethylthiophosphate, dimethyldithiophosphate, diethylphosphate, diethylthiophosphate, and diethyldithiophosphate.
- Phthalate metabolites: mono-ethyl phthalate, mono-butyl phthalate, mono-2-ethylhexyl phthalate, mono-cyclohexyl phthalate, mono-n-octyl phthalate, mono-isononyl phthalate, and mono-benzyl phthalate.

Highlights of the Report

- Cotinine Cotinine is a breakdown product of nicotine after it enters the body. Levels of cotinine in the body track the amount of exposure a person has to tobacco smoke. For a nonsmoker, cotinine tracks exposure to environmental tobacco smoke. CDC measured cotinine in nonsmokers in the U.S. population as part of a previous survey, and the Report presents new cotinine data for 1999.
- There was the more than 75 percent decrease in serum cotinine levels for

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nonsmokers in the United States. This decrease documents a dramatic reduction in exposure of the U.S. population to environmental tobacco smoke since 1991. However, environmental tobacco smoke remains a major public health concern since more than half of American youth continue to be exposed to this known human carcinogen.

Environmental health is one of the Leading Health Indicators in Healthy People 2010. Information on environmental chemical exposures will assist clinicians and public health officials to better understand the relationship between toxic exposures and health consequences and guide public health prevention efforts. CDC will add other substances to future reports based on data obtained from samples collected in subsequent NHANES surveys. CDC will continue to measure the 27 original substances as well. The goal over the next few years is to expand the Report to provide information about 100 chemicals. CDC will monitor trends over time that may help scientists better understand the impact of the environmental chemicals on our health. In the future, CDC will be able to report exposure levels for more specific population groups (e.g., children, minority populations, or women of childbearing age).

The Report Major Findings: <<http://www.cdc.gov/nceh/dls/report/Highlights.htm>>
The Report Overview: <<http://www.cdc.gov/nceh/dls/report/overview.htm>>
The Report Results: <<http://www.cdc.gov/nceh/dls/report/results/categorylist.htm>>
The Report Summary (a PDF file):
<<http://www.cdc.gov/nceh/dls/report/PDF/NatExpRep.pdf>>

Source: <<http://www.usnewswire.com/topnews/Current_Releases/0321-113.html>>

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